

Claims

- [c1] An ejector assembly for use with a mold for molding plastic parts, said ejector assembly comprising:
 - a first stationary member and a second stationary member;
 - an ejector plate moveable between said first and second stationary members;
 - a core blade lifter including a lifter foot assembly that is moveable with said ejector plate, said core blade lifter including a lifter rod pivotally mounted to said lifter foot assembly and moveable laterally and longitudinally in response to movement of said ejector plate; and
 - a stationary helper pin generally parallel to said lifter rod, wherein said core blade lifter includes a helper carrier pivotally mounted to said lifter foot assembly and moveable along said helper pin.
- [c2] The ejector assembly of claim 1 wherein said helper pin is anchored at said first and second stationary members.
- [c3] The ejector assembly of claim 1 including a rod carrier for pivotally mounting said lifter rod to said lifter foot assembly.

- [c4] The ejector assembly of claim 3 wherein said helper carrier and said rod carrier are commonly slidable with respect to said lifter foot assembly.
- [c5] The ejector assembly of claim 1 including an adjustment device for adjusting extension of said lifter rod with respect to said lifter foot assembly.
- [c6] The ejector assembly of claim 1 wherein said lifter rod is at an angle with respect to movement of said ejector plate that is up to 15 degrees.
- [c7] The ejector assembly of claim 6 wherein said lifter rod is at an angle with respect to movement of said ejector plate that is up to 20 degrees.
- [c8] An ejector assembly for use with a mold for molding plastic parts, said ejector assembly comprising:
 - a first stationary member and a second stationary member;
 - an ejector plate moveable between said first and second stationary members;
 - a core blade lifter including a lifter foot assembly that is moveable with said ejector plate, said core blade lifter including a lifter rod, said lifter foot assembly including a rod carrier pivotally mounting said lifter rod to said lifter foot assembly;

a stationary helper pin generally parallel to said lifter rod, wherein said core blade lifter includes a helper carrier pivotally mounted to said lifter foot assembly and moveable along said helper pin; said lifter foot assembly includes a pair of gibb plates with camming surfaces defined along said gibb plates, wherein said helper carrier and said rod carrier are commonly slidable along said camming surfaces.

- [c9] The ejector assembly of claim 8 wherein said helper carrier and said rod carrier are pivotally joined with at least two wear plates and wherein said wear plates are slidable along said camming surfaces.
- [c10] The ejector assembly of claim 8 wherein said camming surfaces are inclined with respect to said ejector plate.
- [c11] The ejector assembly of claim 10 wherein said camming surfaces are inclined at an angle of at least approximately 15 degrees.
- [c12] The ejector assembly of claim 11 wherein said camming surfaces are inclined at an angle in the range of from approximately 15 degrees to approximately 30 degrees.
- [c13] The ejector assembly of claim 8 including an adjustment device for adjusting extension of said lifter rod with respect to said lifter foot assembly.

- [c14] A universal lifter foot assembly for use with an ejector assembly of a mold for molding plastic parts, said universal lifter foot assembly comprising:
 - a pair of gibb plates with camming surfaces defined along said gibb plates;
 - a carrier assembly slidable with respect to said camming surfaces; and
 - said carrier assembly including a rod carrier, a helper carrier and wear plates, said rod carrier and said helper carrier pivotally mounted by said wear plates, wherein said wear plates engage said camming surfaces;
 - wherein said rod carrier is adapted to actuate a lifter rod, said helper carrier is adapted to slide along a stationary helper pin generally parallel to the lifter rod.
- [c15] The universal lifter foot assembly of claim 14 wherein said camming surfaces are inclined with respect to said ejector plate.
- [c16] The universal lifter foot assembly of claim 15 wherein said camming surfaces are inclined at an angle of at least approximately 15 degrees.
- [c17] The universal lifter foot assembly of claim 16 wherein said camming surfaces are inclined at an angle in the range of from approximately 15 degrees to approxi-

mately 30 degrees.

- [c18] The universal lifter foot assembly of claim 14 wherein said rod carrier includes an adjustment device for adjusting extension of the lifter rod with respect to said universal lifter foot assembly.